The oxygen ratio is  $RO : R_2O_3 : SiO_2 - 1 : 1.28 : 2.19$ 

and the atomistic formula is-

It will be noticed that iron is contained in this garnet, both in the ferrous and in the ferric state, while in the analyses on record the iron is given as being all in the ferrous state. When those analyses were made, the method of decomposing minerals in strong sealed tubes at a high pressure was not known, and the mineral cannot be decomposed at the ordinary atmospheric pressure, as stated above. In heating the powder for thirty-six hours with acid containing 25 per cent. of sulphuric hydrate at  $160^{\circ}$  C., I succeeded in decomposing all but 7 per cent. The ferrous oxide obtained from the solution was then calculated pro rata for the undecomposed part, and the above result obtained.

To suppose that the presence of ferric iron is due to incipient alteration would not be justified, since no water was obtained by ignition, and the pellucidy of the mineral does not appear impaired. To explain the result of analysis the presence either of ferric oxide or manganic oxide must be admitted, which alternation would neither affect the oxygen ratios, nor the atomic composition.

I am indebted to Mr. Clarence Bement of this city for the material used in this investigation, and I hereby express my thanks for his kindness.

The thanks of the Academy were returned to Dr. James S. Gilliams for a portrait of the late Jacob Gilliams, one of the founders of the Academy, painted by Rothermell.

## APRIL 11.

## The Rev. E. R. BEADLE in the chair.

Thirty-four members present.

The following papers were presented for publication: "The Genus Pomoxys, Raf." By D. S. Jordan and H. E. Copeland. "Chemical Notes." By Geo. Hay.

Remarks on Arcella, etc.—Prof. LEIDY remarked that the Rhizopods are so exceedingly polymorphous, that, to say the least of them, their specific and generic limits appear less well defined than in higher animals. In speaking of the Difflugian Rhizopods,

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